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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,312	11/10/2003	Ricky Dion Barnes	5198-001	4460

24112 7590 05/14/2008
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EXAMINER	
MUSSELMAN, TIMOTHY A	
ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
05/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/705,312	BARNES ET AL.	
	Examiner	Art Unit	
	TIMOTHY MUSSELMAN	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-29 and 31-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-29 and 31-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

In response to the amendment filed 1/15/2008, claims 21-29, and 31-40 are pending in this application. Claims 1-20 and 30 have previously been cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of the relevant portion of 35 U.S.C. 103 that forms the basis for the rejections made in this section of the office action;

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Claims 21, 23-27, 29, 34-35, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dornbusch et al (US 5,110,202) in view of Judd (US 4,934,937).

Regarding claims 21, 26-27, 29, 34-35, and 39-40, Dornbusch discloses a laser positioning system that comprises a laser emitter stationed at a fixed location that sweeps a beam through a 360 degree field of rotation. See col. 2: 6-12. Note that a laser is an optical beam as per **claim 26**. Dornbusch further discloses portable sensors that emit an electrical pulse when struck by one of the rotating lasers. See col. 2: 35-44. Dornbusch further discloses wherein the swept beam(s) establish a height limit. See col. 2: 26-36, and note that the “point of crossing the beams” which

triggers detection would be an effective height limit to a sensor below said beams. Dornbusch fails to teach of the portable sensor being configured to be wearable, and also fails to teach wherein the wearable device is configured to emit an alarm when struck by a laser. Note, however, that Dornbusch does disclose in col. 4: 63-68 that any suitable detector can work with the system. Note also that Dornbusch is merely saying any suitable *laser detector* can work with the system, and is not speaking of the position-detecting computer, which is a separate device *attached to* the laser detector. Judd discloses a system that comprises a swept laser beam wherein detection sensors are worn by individuals in the field to indicate when the laser is in contact with the device, and further wherein the worn detection devices emit an audible alarm (**claims 27, 34, and 39**). See col. 3: 39-55. Since both systems utilize lasers to indicate positions of sensors in the field of a swept beam, the detector of Judd would have been a suitable detector in the system of Dornbusch, and such use would have been obvious to one of ordinary skill in the art at the time of the invention. Note also that the sensor of Judd is only active *when struck by the beam*, so the limitations of **claim 40** are implicit, because the sensor would not be activated when the sensor is moved away from the beam. Also, note from fig. 3 and col. 3: 39-55 that the placement of the sensors is such that the beam would strike a user who is in the crawling or prone position (the sensors are on the shoulder straps of the wearable apparatus).

Regarding claim 23, Dornbusch further discloses redirecting devices positioned away from the emitter to extend the height limit. See col. 2: 63-68.

Regarding claim 25, Dorbusch further discloses wherein the beam establishes a 360 degree zone with the height limit. See col. 3: 43-54, and note that the determination of a 3D location implies not only height information, but also positions in a 360 degree field from any location within the detection zone.

Claims 22, 24, 28, 31-33, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dornbusch et al (US 5,110,202) in view of Judd (US 4,934,937) and in further view of Butler et al. (US 5,903,345).

Regarding claims 22, 28, 31-33, and 36-38, Dornbusch/Judd disclose all of the features of parent claims 21, 29, and 35 as described above. However, there is no explicit teaching wherein the beam apparatus position is adjustable along the vertical axis, wherein the beam angle is adjustable relative to the ground (including the angle specifics of claims 37 and 38), and further wherein these adjustments can be accomplished via remote control. However, Butler discloses a device that is designed explicitly for the purpose of remote control position adjustments of emitted laser beams, including all of the afore-mentioned features. See col. 1: 20-47. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the adjustable laser scanner of Butler as the emitters in the system of Dornbusch, because such a combination would merely be a composite of elements known in the art and both devices would still be fulfilling there intended purposes with no unexpected results.

Regarding claim 24, Dornbusch further discloses wherein multiple laser devices are used to establish the position detection limits. See col. 2: 19-26.

Response to Arguments

Applicants arguments dated 1/15/2008 have been fully considered. Applicant's assertion that the laser in the system of Dornbusch does not rotate 360 degrees are not persuasive. In col. 2: 1-35, Dornbusch clearly discloses how the beams *rotate about an axis* as they seeks out targets. See also fig. 1a, which illustrates the rotation (about emitter 10b). Examiner is also not persuaded by applicant's assertion that the sensors of Judd would not be struck by a laser beam in the crawling

or prone position. Fig. 3 shows sensors located near the shoulder blades of the user of the vest which would likely be struck by a beam when the user is crawling forward.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Musselman whose telephone number is (571)272-1814. The examiner can normally be reached on Mon-Thu 6:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. M./
Acting Examiner of Art Unit 3714

/Robert Pezzuto/
Supervisory Primary Examiner
Art Unit 3714